

**STATEMENT OF WORK**  
**Aquatic Organism Passage (396)**  
**South Carolina**

**These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.**

---

**DESIGN****Deliverables:**

1. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
  - a. Practice purpose(s) as identified in the conservation plan
  - b. List of required permits to be obtained by the client, COE CWA 404, SC DHEC CWA 401
  - c. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06)
  - d. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
    - i. Hydrology/Hydraulics
    - ii. Structural
    - iii. Environmental Considerations (GM 190 ECS-Part 410.22)
2. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits...
3. Design Report and Inspection Plan as appropriate (NEM Part 511, Subpart B Documentation, 511.11 and Part 512, Subpart D Quality Assurance Activities, 512.30 through 512.32).
4. Operation and Maintenance Plan
5. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.03 (a) (3)).
6. Design modifications during installation as required.

---

**INSTALLATION****Deliverables**

1. Pre Installation conference with client and contractor.
2. Verification that client has obtained required permits. COE CWA 404, SC DHEC CWA 401
3. Staking and layout according to plans and specifications including applicable layout notes.
4. Installation inspection (according to inspection plan as appropriate).
  - a. Actual materials used (Part 512, Subchapter D Quality Assurance Activities, 512.33)
  - b. Inspection records
5. Facilitate and implement required design modifications with client and original designer
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
7. Certification that the installation process and materials meets design and permit requirements.

---

**CHECK OUT****Deliverables**

1. As-Built documentation.
    - a. Extent of practice units applied
    - b. Drawings
    - c. Final quantities
  2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.03 (c) (1)).
  3. Progress reporting.
-

**STATEMENT OF WORK**  
**Aquatic Organism Passage (396)**  
**South Carolina**

**REFERENCES**

---

- [Aquatic Nuisance Species Information](#). 2006. (per Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 [16 U.S.C. 4701]).
- Bell, M.C. 1990. *Fisheries Handbook of Engineering Requirements and Biological Criteria*. United States Army Corps of Engineers, Fish Passage Development and Evaluation Program, Portland, OR. 290 p.
- Clay, C.H. 1995. *Design of Fishways and Other Fish Facilities*. Second Edition. CRC Press, Inc. Boca Raton, FL. 248 pp.
- Jungwirth, M., S. Schmutz, and S. Weiss, editors. 1998. *Fish Migration and Fish Bypasses*. Fishing News Books, Oxford, UK. 438 pp.
- NRCS. 2006. Fish passage and screening designs. Technical Supplement 14-N to NEH-654 – Stream Restoration Design Handbook.
- Taylor, R.N. and M. Love. 2003. [Fish passage evaluation at stream crossings](#). Part IX in: California Stream Habitat Restoration Manual, 3<sup>rd</sup> edition, 1998. Prepared by G. Flosi, S. Downie, J. Hopelain, M. Bird, R. Coey, and B. Collins. Sacramento, CA. 100 electronic pp.
- United States Forest Service (USFS). 2006. Low water crossings: Geomorphic, biological, and engineering design considerations. 0625 1808, SDTDC, San Dimas, CA.
- USFS. 2008. Stream Simulation: An ecological approach to providing passage for aquatic organisms at road-stream crossings. 0877 1801P, NTDP, San Dimas, CA.
- Washington Department of Fish and Wildlife (WDFW). 2000. [Fishway guidelines for Washington State](#). Olympia, WA. 57 pp.
- WDFW. 2000. [Fish passage barrier and surface water diversion screening and prioritization manual](#). WDFW Habitat Program, Environmental Restoration Division, Salmon Screening, Habitat Enhancement and Restoration Section, Olympia, WA. 158 pp.
- NRCS Stream Visual Assessment Protocol 2